

June 18, 2019

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

RE: Proceeding WT Docket 19-116

Dear Ms. Dortch:

I have been a broadcast meteorologist for over 40 years. I did my training at the University of Wisconsin-Madison in the 1970's when the early work was being performed in satellite meteorology.

My comments on this proceeding relate to the questions in paragraph 20 of your Notice of Proposed Rulemaking seeking comment on how non-federal MetSat receivers use MetSat data and the products or services such data supports.

The broadcast television industry has changed greatly from the days of magic markers and magnetic weather symbols on camera. Satellite imagery, Doppler radar and advanced weather computer systems have transformed weather forecasting and presentation.

We are far better at forecasting over several days duration, but more importantly we have as a weather enterprise made great strides in short term forecasting and severe weather warnings. The advances in the past four decades have saved thousands of lives and many millions of dollars in the United States.

We broadcast meteorologists rely upon warnings, watches and outlooks developed by the U.S. National Weather Service, as well as model outputs to assemble our local forecast. A private broadcast meteorologist uses the federally created watches, warnings, and other products when there is safety of life and property involved; our unique daily forecasts developed by broadcasters like myself are about weather conditions and what we expect to occur within our forecast horizon.

Every broadcast features a satellite imagery view, which originates from the GOES operational satellite that covers the fifty United States, and surrounding ocean areas. Most of us utilize a private sector provider of those services that integrates the weather information, imagery and data within a graphics package suitable for use in television. That private non-federal entity obtains the GOES data from a GOES Re-Broadcast Earth station antenna from either GOES-East or GOES-West satellites.

The increased need for broadcast band-width for modern communications is now putting the strides we have made in the weather community in jeopardy. The desire to chip away at the L band frequency threatens to create radio frequency interference that could disrupt my vendor's ability to receive critical satellite and weather data, at their Earth station which could foster itself on the screen of my weather center and possible make it onto the air.

Communicating with the public (my station in Denver Colorado, covers approximately an area of 113,000 square miles and a population of 3.8 million within this region of the western U.S.) The satellite imagery helps to convey to the general public the current and forthcoming weather conditions.

Beyond not getting the high-resolution images of hurricanes and tornado producing thunderstorms, we also risk losing vital river gauge data that provides the basis for issuing Flash Flood Warnings and "ground trothing" the rainfall algorithms that are used with Doppler Radar (NexRad).

During the devastating flooding along the Colorado Front Range in 2013, I relied upon the stream gauge readings to convey flash flood information to my viewers. The worst of the flooding occurred in the middle of the night and these gauges were truly the only source of lifesaving information as there was no visual available of the flooding.

According to the NWS, this flooding during September 9-15, 2013 "produced widespread flooding from the Pike's Peak Region northward to the Wyoming border. Record rain amounts fell, (...) with the hardest hit being Larimer, Boulder and southwest Weld Counties as well as parts of El Paso County and metropolitan Denver. Flooding impacted 6 rivers, 14 counties, and over a dozen cities and towns in Colorado. Flood damage encompassed nearly 2000 square miles of the Colorado Front Range. ... There were 8 flood fatalities. More than 3,000 people had to be rescued and more than 11,000 evacuated. The storm destroyed 1,500 houses, 200 commercial buildings and 30 state highway bridges. Flood waters damaged nearly 19,000 houses and 800 commercial buildings ... Total damage estimate from \$1 to \$2 billion dollars.¹

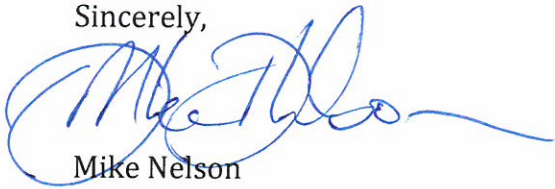
Gauges relayed via GOES would fall within the radio band of concern to this proceeding. Any interference or delay in getting the stream or river data could have been catastrophic and would likely have changed some of the statistics above.

As a Fellow of the American Meteorological Society (only one of 25 broadcasters ever so honored), I urge the FCC to re-consider opening the L Band frequencies for use in communication channels. And if those changes are made, to protect the Earth

¹ <https://www.weather.gov/safety/flood-states-co>

stations of non-federal users whose data ultimately helps us inform our viewing audience.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Mike Nelson', with a long horizontal flourish extending to the right.

Mike Nelson
Chief Meteorologist
KMGH-TV Denver
AMS Fellow